

CLAIM AMENDMENTS

Claim Amendment Summary

Claims pending

- Before this Amendment: Claims 2-7, 9-30, 32-39, 41-46, and 48.
- After this Amendment: Claims 2-7, 9-30, 32-39, 41-46, and 48.

Non-Elected, Canceled, or Withdrawn claims: None

Amended claims: 2, 20, 32, 41 and 48.

New claims: None

Claims:

1. (Cancelled)
2. (Currently Amended) A method of operating a portable computing device comprising:

determining a location of the portable computing device, wherein the determining comprises: by

receiving location information from a location provider, the location information pertaining to a current location of the portable computing device;

accessing one or more hierarchical tree structures each of which comprising multiple nodes that represent physical or logical locations, each node having a unique identifier; and

traversing at least one node on the one or more hierarchical tree structures responsive to the receiving of the location information to ascertain a device location;

acquiring digital data associated with the determined location and that can permit the portable computing device to interact with an application associated with a location environment; and

interacting with the application that queries the portable computing device about the current location by supplying the application with information that pertains to the determined location ~~location-environment based, at least in part, on the acquired digital data.~~

3. (Previously Presented) The method of claim 2, wherein said accessing comprises locally accessing said one or more hierarchical tree structures.

4. (Previously Presented) The method of claim 2, wherein said accessing comprises accessing said one or more hierarchical tree structures from a source that is remote from the device.

5. (Previously Presented) The method of claim 2, wherein said accessing comprises wirelessly accessing said one or more hierarchical tree structures.

6. (Previously Presented) The method of claim 2, wherein said determining comprises receiving location information from multiple different location providers and, based on the location information, determining the location.

7. (Previously Presented) The method of claim 2, wherein said determining comprises wirelessly receiving location information from multiple different location providers and, based on the location information, performing said acts of accessing and traversing.

9. (Previously Presented) The method of claim 2, wherein the digital data comprises data that is used to render a Web page.

10. (Previously Presented) The method of claim 9, wherein said interacting comprises interacting with the Web page.

11. (Previously Presented) The method of claim 2, wherein the digital data comprises code download pointers that reference software code that can be wirelessly downloaded on the device.

12. (Previously Presented) The method of claim 11, wherein said interacting comprises:

using the code download pointers to access and load the software code on the device; and

executing the software code on the device.

13. (Previously Presented) The method of claim 11, wherein said interacting comprises:

using the code download pointers to access and load the software code on the device; and

executing the software code in a runtime environment on the device.

14. (Previously Presented) The method of claim 2, wherein the digital data comprises one or more applets that can be executed on the device.

15. (Previously Presented) The method of claim 14, wherein said interacting comprises locally executing the one or more applets.

16. (Previously Presented) The method of claim 2, wherein said acquiring comprises wirelessly acquiring the digital data via the Internet.

17. (Previously Presented) A portable computing device programmed with instructions that implement the method of claim 2.

18. (Previously Presented) A handheld portable computing device programmed with instructions that implement the method of claim 2.

19. (Previously Presented) One or more computer-readable media having computer-readable instructions thereon which, when executed by a computer, implement the method of claim 2.

20. (Currently Amended) A method of operating a portable computing device comprising:

determining a location of the portable computing device, wherein said determining comprises: by

receiving location information from a location provider, the location information pertaining to a current location of the portable computing device;

accessing ~~one or more~~ multiple hierarchical tree structures comprising multiple nodes that represent physical or logical locations, each node having a unique identifier; and

traversing at least one node on the one or more hierarchical tree structures responsive to the receiving of the location information to ascertain a device location;

wherein the multiple hierarchical tree structures further comprising:

a first hierarchical tree structure having multiple nodes associated with first locations, the first hierarchical tree structure having a uniform standardized representation;

a second hierarchical tree structure having multiple nodes associated with second locations,

wherein the second hierarchical tree structure has a proprietary representation,

each node has a URL (Uniform Resource Locator), and
at least one node from the second hierarchical tree
structure is linked with one node on the first hierarchical tree
structure by a link that is configured to enable a complete
location to be derived from the first and second locations;

acquiring one or more applets associated with the determined location;
and

locally executing the one or more applets sufficient to interact with a
location environment.

21. (Previously Presented) The method of claim 20 further comprising
maintaining an applet cache in which applets can be cached for use on the
device.

22. (Previously Presented) The method of claim 21 further comprising
removing one or more applets when a device location changes such the one or
more applets are no longer needed.

23. (Previously Presented) The method of claim 20, wherein said
acquiring comprises generating a query that is configured to identify one or more
applets that are associated with the location.

24. (Previously Presented) The method of claim 20, wherein said acquiring comprises querying a server to ascertain one or more applets that are associated with the location and that provide a location-specific service.

25. (Previously Presented) The method of claim 24 further comprising receiving a response from the server that contains digital data associated with services that are provided for that location.

26. (Previously Presented) The method of claim 25, wherein the digital data comprises one or more URLs that are associated with applets that can be executed for that location.

27. (Previously Presented) The method of claim 25, wherein the digital data comprises one or more applets that can be executed for that location.

28. (Previously Presented) A portable computing device programmed with instructions that implement the method of claim 20.

29. (Previously Presented) A handheld computing device programmed with instructions that implement the method of claim 20.

30. (Previously Presented) One or more computer-readable media having computer-readable instructions thereon which, when executed by a computer, implement the method of claim 20.

31. (Cancelled)

32. (Currently Amended) One or more computer-readable media having computer-readable instructions thereon which, when executed by a portable computer device, cause the computing device to:

determine its location by

receiving location information from a location provider, the location information pertaining to a current location of the portable computing device,

accessing one or more hierarchical tree structures each of which comprising multiple nodes that represent physical or logical locations, each node having a unique identifier, and

traversing at least one node on the one or more hierarchical tree structures responsive to the receiving of the location information to ascertain a device location;

generate a service query that is configured to identify services that are associated with the location;

wirelessly send the query to one or more servers;

receive a response from the one or more servers that contains digital data associated with applets that can be executed by the device and that provide a location-specific service; and

locally execute the one or more applets to interact with a location environment.

33. (Previously Presented) The computer-readable media of claim 32, wherein the instructions cause the portable computing device to determine its location by:

receiving location information from multiple different location providers, the location information pertaining to a current location; and

accessing said one or more hierarchical tree structures each of which comprising multiple nodes that represent physical or logical locations; and

traversing at least one node on the one or more hierarchical tree structures, based at least in part on the location information, to ascertain a device location.

34. (Previously Presented) The computer-readable media of claim 32, wherein the response comprises one or more URLs associated with applets that can be executed by the device, and further comprising using the URLs to wirelessly access one or more associated applets.

35. (Previously Presented) The computer-readable media of claim 32, wherein the instructions cause the portable computing device to:

receive one or more digitally signed applets; and

authenticate the one or more applets prior to executing them on the device.

36. (Previously Presented) The computer-readable media of claim 32, wherein the instructions cause the portable computing device to maintain an applet cache in which applets can be cached for future use on the device.

37. (Previously Presented) The computer-readable media of claim 36, wherein the instructions cause the portable computing device to remove one or more applets from the applet cache when a device location changes such that the one or more applets are no longer needed.

38. (Previously Presented) A portable computing device embodying the computer-readable media of claim 32.

39. (Previously Presented) A handheld computing device embodying the computer-readable media of claim 32.

40. (Cancelled)

41. (Currently Amended) A computer architecture comprising:
a location service module configured to wirelessly receive location information and ascertain a location associated with the location information by receiving the location information from a location provider, the location information pertaining to a current location of the portable computing device,

accessing one or more hierarchical tree structures each of which comprising multiple nodes that represent physical or logical locations, each node having a unique identifier, and

traversing at least one node on the one or more hierarchical tree structures responsive to the receiving of the location information to ascertain a device location; and

an applet manager operably associated with the location service module and configured to receive and manage applets that can be wirelessly received and that pertain to a location that is ascertained by the location service module, the applets being configured to enable a user of a computer device to interact with an application associated with a location environment, wherein the application queries the portable computing device about the current location, by supplying the application with information that pertains to the ascertained location.

42. (Previously Presented) The computer architecture of claim 41 further comprising an applet runtime environment in which one or more wirelessly received applets can execute.

43. (Previously Presented) The computer architecture of claim 41 further comprising an applet cache in which applets can be cached for use in connection with an ascertained location.

44. (Previously Presented) The computer architecture of claim 41 further comprising a network component configured to establish wireless communication with a network so that applets can be wirelessly received.

45. (Previously Presented) A portable computing device embodying the computer architecture of claim 41.

46. (Previously Presented) A handheld computing device embodying the computer architecture of claim 41.

47. (Cancelled)

48. (Currently Amended) A handheld computing device comprising:
a location service module configured to receive location information and ascertain a location associated with the location information by

receiving location information from a location provider, the location information pertaining to a current location of the portable computing device,

accessing one or more hierarchical tree structures each of which comprising multiple nodes that represent physical or logical locations, each node having a unique identifier, and

traversing at least one node on the one or more hierarchical tree structures responsive to the receiving of the location information to ascertain a device location;

an applet manager operably associated with the location service module and configured to receive and manage applets that can be wirelessly received and that pertain to a location that is ascertained by the location service module;

an applet runtime environment in which applets that are received can execute to enable a user of the device to interact with a location environment;

an applet cache in which applets can be cached for use in connection with an ascertained location; and

a network component configured to establish wireless communication with a network so that applets can be wirelessly received.